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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,750	04/09/2004	John Maguire	2221/103	1877
2101 7590 03/06/2008 BROMBERG & SUNSTEIN LLP 125 SUMMER STREET BOSTON, MA 02110-1618			EXAMINER INGVOLDSTAD, BENNETT	
			ART UNIT 2623	PAPER NUMBER
			MAIL DATE 03/06/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/821,750

Applicant(s)

MAGUIRE ET AL.

Examiner

BENNETT INGVOLDSTAD

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 25-45 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 25-45 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/20/2005, 7/17/2006, 7/24/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/18/2005 have been fully considered but they are not persuasive.

Applicant argues that Leroy does not suggest that the audience response data be formatted into an associative mapping. While Leroy does not explicitly use the term "associative mapping", the graph as shown in Figure 7 makes clear that the data is stored as an associative mapping because the call data is mapped with a time variable (along the horizontal axis) and a variable indicating the segment of the broadcast (along segment timeline 20), with each record having an associated time and segment value. Therefore the data mapping comprises an associative mapping.

Applicant argues that Leroy does not disclose a mapping that is accessible by content, as required by claim 25. As cited, Figure 6(f) shows a tabulation of response data. The tabulation organizes the content of the responses into a graph and several tables [col. 6, l. 6-13]. To organize the content of the responses, the content must be accessible and thus the responses are considered "accessible by content".

Information Disclosure Statement

2. The information disclosure statement filed 7/17/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 30-34 and 43-45 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 30-34 and 43-45, it is not clear from Applicant's specification whether a "computer program product" is statutory subject matter.

To overcome this rejection, the examiner suggests amending the rejected claims to claim a --computer readable medium encoded with a computer program--.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3-8, 10, 12-15, 17-20, 22-23, and 25-45 are rejected under 35

U.S.C. 102(e) as being anticipated by Leroy (US 5812642).

Regarding claim 1, Leroy discloses an apparatus for determining at least one response to a plurality of stimuli (an apparatus for analyzing responses to a broadcast comprising a plurality of time segments [col. 4, l. 45-57]), the apparatus comprising:

- a stimulus input that receives a plurality of stimulus signals that each represent at least one of the plurality of stimuli (time segment codes for time line 20 [Fig 7] are input to the apparatus [col. 5, l. 1-8]);
- a response input that receives at least one response signal, each response signal being indicative of a response to at least one of the stimuli (responses to the broadcast [col. 2, l. 31-33] are received through data collection unit 110 via call router 109 [Fig 3][col. 5, l. 9-19]); and
- a correlator coupled with the stimulus input and the response input, the correlator correlating the received stimulus signals with each received response signal as a function of time (received timeline 20 is correlated with the call response data [Fig 7]) to produce a multi-channel associative

mapping, the multi-channel associative mapping correlating the plurality of stimulus signals (segments in timeline 20 [Fig 7]) with both time and at least one of the response signals (time and number of calls [Fig 7]).

Regarding claim 3, depending on claim 1, Leroy further discloses wherein the plurality of stimulus signals each comprise a plurality of frames, the associative mapping correlating each frame with a portion of each response signal (the plurality of stimulus time segments [Bob, Kim, etc. Fig 7] comprise a plurality of time units, i.e. time "frames").

Regarding claim 4, depending on claim 1, Leroy further discloses wherein at least one of the one or more input devices is a sensor that measures an environmental condition (telephones [col. 5, l. 9-19] measure sound, an environmental condition).

Regarding claim 5, depending on claim 1, Leroy further discloses wherein the stimuli comprise a time-delayed presentation (time segments may have been previously recorded [col. 6, l. 46-48])

Regarding claim 6, depending on claim 1, Leroy further discloses wherein the associative mapping associates at least one of video, audio and response variables with time (response variables with time [Figs 4-8]).

Regarding claim 7, depending on claim 1, Leroy further discloses:

- an output that directs an output signal to a display device, the output signal including data for displaying the associative mapping substantially instantaneously after the creation thereof (analyses [Figs 4-8] are directed to a video screen [col. 6, l. 17-22] in real-time [col. 8, l. 31-34]).

Regarding claim 8, depending on claim 1, Leroy further discloses wherein the response input includes at least a first group of responses having first variables, and a second group of responses having second variables, at least one variable being different between the first group and the second group, the first group being disposed at a first angle to the stimulus that differs from a second angle of the second group to the stimulus [col. 7, l. 43-60].

Regarding claim 10, depending on claim 1, Leroy further discloses wherein the correlator includes a stored stimulus signal to compare against the plurality of stimulus signals and generate a difference signal representative of the differences between the plurality of stimulus signals and the stored signal (segments may be stored on tape, segments are compared with other segments by at least a visual method [Fig 7])

Regarding claim 12, depending on claim 1, Leroy further discloses a video recorder being adapted to record an image generated by the display substantially instantaneously after the creation thereof (real-time analysis [col. 8, l. 31-34] directed to a VCR 16 [Fig 3]).

Regarding claim 13, depending on claim 1, Leroy further discloses:

- an analyzer in electrical communication with the correlator, the analyzer adapted to perform statistical analysis on the input signals from the response input to find selected segments of the stimulus signal (analysis results correlated with segments on segment timeline 20 [Fig 7]).

Regarding claim 14, depending on claim 1, Leroy further discloses wherein the analyzer determines a point of statistical interest as measured against predetermined criteria (the line graph 26 comprises multiple points of interest measured against time [Fig 7])

Regarding claim 15, depending on claim 1, Leroy further discloses wherein the analyzer interpolates information based upon the input signals from each of the one or more input devices (the line graph comprises lines interpolating between points [Fig 7]).

Regarding claim 17, depending on claim 1, Leroy further discloses a computer in electrical communication with the correlator such that the correlator transmits the stimulus signal and the input signals in raw form to the computer (the correlating apparatus includes a computer processor [Fig 3] for processing the data)

Regarding claim 18, depending on claim 17, Leroy further discloses wherein the correlator performs digital signal processing on the plurality of stimulus signals and the input signals forwarded to the computer (signals representing data-time correlations are processed in order to determine the effectiveness of individual segments [col. 6, l. 33-44]).

Regarding claim 19, depending on claim 18, Leroy further discloses wherein the computer comprises a graphical user interface through which a user selects which statistical analysis is performed [col. 7, l. 24-33].

Regarding claim 20, depending on claim 18, Leroy further discloses wherein the computer comprises a graphical user interface for displaying the associative mapping in real time [col. 8, l. 28-39].

Regarding claim 22, depending on claim 1, Leroy further discloses wherein the response input is coupled to a network (the apparatus is connected to networked terminals 106 [Fig 3]).

Regarding claim 23, depending on claim 22, Leroy further discloses wherein the stimulus input is coupled to the network (the apparatus is connected to networked terminals 106 [Fig 3]).

Regarding claim 25, Leroy discloses a method of determining an audience's response to a stimulus (response to a broadcast comprising time segments [col 4, l. 45-47]), the method comprising:

- receiving, in real time, at least one response to the stimulus (time segment codes for time line 20 [Fig 7] are input to the apparatus in real-time [col. 5, l. 1-8]);
- correlating, by time, the at least one response and the stimulus to generate an associative mapping of the at least one response (a mapping associating e.g. number of calls with time and broadcast segment [Fig 7]), the associative mapping correlating the stimulus (the broadcast segment along segment timeline 20 [Fig 7]), at least one response to the stimulus (number of calls [Fig 7]), and time [Fig 7] in a database (an associative mapping is a database); and
- storing the associative mapping such that the associative mapping is accessible by content of the at least one response (content of the responses is tabulated [Fig 6f]).

Regarding claim 26, depending on claim 25, Leroy further discloses:

- receiving search criteria representative of content of the at least one response (receiving parameters to assemble custom reports based on the response content [col. 7, l. 66 – col. 8, l. 2]); and
- generating a response signal having data identifying the at least one response that meet the search criteria (generating a custom report, arranging the responses according to the search criteria [col. 7, l. 66 – col. 8, l. 2]).

Regarding claim 27, depending on claim 26, Leroy further discloses:

- forwarding the response signal to a display device to display the at least one response that meet the search criteria (analyses are sent to a display [col. 6, l. 17-22])

Regarding claim 28, depending on claim 25, Leroy further discloses wherein the act of correlating comprises:

- generating an analyzed variable having the at least one response and the stimulus at a given time [Figs 6a-6f].

Regarding claim 29, depending on claim 25, Leroy further discloses wherein the associative mapping correlates the stimulus over time with the at least one response [Fig 7].

Regarding claim 30, Leroy discloses a computer program product for use on a computer system for determining an audience's response to a stimulus (response to a broadcast comprising time segments [col 4, l. 45-47]), the computer program product comprising a computer usable medium having computer readable program code thereon, the computer readable program code including:

- program code for receiving, in real time, at least one response to the stimulus [col. 5, l. 1-8];
- program code for correlating, by time, the at least one response (number of calls [Fig 7]), the stimulus (the broadcast segment along segment timeline 20 [Fig 7]), and time [Fig 7] to generate an associative mapping (the line graph 26 associates the variables [Fig 7]), the associative mapping being capable of correlating multiple stimuli with responses (multiple segments along the segment timeline 20 [Fig 7]); and
- program code for storing the associative mapping such that the associative mapping is accessible by content of the at least one response (content of the responses is tabulated [Fig 6f]).

Claims 31-34 are rejected as set forth in the rejections of claims 26-29, respectively.

Regarding claim 35, Leroy discloses an apparatus for determining an audience's response to a plurality of stimuli (response to a broadcast comprising a plurality of time segments [col 4, l. 45-47]), the apparatus comprising:

- an input for receiving, in real time, a plurality of responses to the plurality of stimuli (a plurality of responses to a plurality of broadcast segments [col. 5, l. 1-5], segments shown on segment timeline 20 [Fig 7]);
- a correlator for correlating, by time, the plurality of responses and the plurality of stimuli to generate a multi-channel associative mapping (associative mappings [Fig 7] may be tabulated for multiple programs [Fig 5]) of the plurality of responses (number of calls [Fig 7]) and plurality of stimuli (the broadcast segments along segment timeline 20 [Fig 7]) with time [Fig 7]; and
- a storage module operatively coupled with the correlator, the storage module storing the associative mapping such that the associative mapping is accessible by content of the at least one response (content of the responses is tabulated [Fig 6f]).

Regarding claim 36, depending on claim 35, Leroy further discloses:

- a search input that receives search criteria representative of content of the plurality of responses (receiving parameters to assemble custom reports based on the response content [col. 7, l. 66 – col. 8, l. 2]); and

- means for generating a response signal having data identifying the at least one of the plurality of responses that meet the search criteria (generating a custom report, arranging the responses according to the search criteria [col. 7, l. 66 – col. 8, l. 2]).

Regarding claim 37, Leroy discloses an apparatus for processing a response to a stimulus for display in real time [col. 8, l. 28-34], the apparatus comprising:

- a response input that receives at least one response signal, each response signal corresponding in time to the stimulus (number of calls, corresponding to the segment timeline 20 [Fig 7]);
- a processor operatively coupled with the response input (processor 100 coupled to call router 109 [Fig 3]), the processor associating the at least one response signal (number of calls [Fig 7]) with at least one portion of the stimulus (time segments on timeline 20 representing the stimulus [Fig 7]) and time [Fig 7] to produce an associative mapping representative of the at least one response to the at least one portion of the stimulus (the line graph 26 associates the number of calls, the time, and the time segment [Fig 7]); and
- an output operatively coupled with the processor, the output forwarding a display signal having data representing the associative mapping (video 18 [Fig 3] for displaying the analysis [col. 6, l. 17-22]).

Regarding claim 38, depending on claim 37, Leroy further discloses:

- a display device for receiving the display signal and displaying the at least one response and the portion of the stimulus as represented in the associative mapping (displaying the analysis [col. 6, l. 17-22][Fig 7]).

Regarding claim 39, depending on claim 37, Leroy further discloses:

- a comparator for comparing the stimulus to an archive of a prior response to a prior stimulus stored on a storage device (responses are compared to stored prior responses for generating statistics such as "Total Pledges" and "\$ Per Min" [Fig 7]).

Regarding claim 40, Leroy discloses a method for processing a response to a stimulus for display in real time [col. 8, l. 28-34], the method comprising:

- receiving at least one response signal, each response signal corresponding in time to the stimulus (number of calls, corresponding to the segment timeline 20 [Fig 7]);
- associating the at least one response signal (number of calls [Fig 7]) with at least one portion of the stimulus (time segments on timeline 20 representing the stimulus [Fig 7]) and time [Fig 7] to produce an associative mapping representative of the at least one response to the at least one portion of the stimulus (the line graph 26 associates the number of calls, the time, and the time segment [Fig 7]); and

- generating a display signal having data representing the associative mapping (video 18 [Fig 3] for displaying the analysis [col. 6, l. 17-22]).

Claims 41 and 42 are rejected as set forth in the rejections of claims 38 and 39, respectively.

Regarding claim 43, Leroy discloses a computer program product for use on a computer system for processing a response to a stimulus for display in real time [col. 8, l. 28-34], the computer program product comprising a computer usable medium having computer readable program code thereon, the computer readable program code including:

- program code for receiving at least one response signal, each response signal corresponding in time to the stimulus (number of calls, corresponding to the segment timeline 20 [Fig 7]);
- program code for associating the at least one response signal (number of calls [Fig 7]) with at least one portion of the stimulus (time segments on timeline 20 representing the stimulus [Fig 7]) and time [Fig 7] to produce an associative mapping representative of the at least one response to the at least one portion of the stimulus (the line graph 26 associates the number of calls, the time, and the time segment [Fig 7]); and

- program code for generating a display signal having data representing the associative mapping (video 18 [Fig 3] for displaying the analysis [col. 6, l. 17-22]).

Claims 44 and 45 are rejected as set forth in the rejections of claims 38 and 39, respectively.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 9, 11, 16, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leroy (US 5812642).

Regarding claim 2, depending on claim 1, Leroy does not disclose that the associative mapping [Fig 7] is stored in an associative cache.

OFFICIAL NOTICE is taken that it was well known to store an associative mapping in an associative cache.

Therefore it would have been obvious to have stored the associative mapping [Fig 7] in an associative cache, due to the well known utility of the associative cache for storing an associative mapping.

Regarding claim 9, depending on claim 1, Leroy discloses at least one monitoring device adapted to receive the plurality of stimuli and generate the plurality of stimulus signals (the apparatus receives and displays the broadcast [col. 8, l. 31-34] and generates the broadcast segment timeline [col. 5, l. 1-8]).

Leroy does not further disclose the at least one monitoring device detecting light outside the visible spectrum.

OFFICIAL NOTICE is taken that it was well known to control a device with a remote control, the device detecting light outside the visible spectrum generated by the remote control.

It would have been obvious to have modified the apparatus to be controlled by a remote control, for the purpose of allowing a user to control the apparatus from a distance.

Regarding claim 11, depending on claim 10, Leroy does not disclose wherein the processor alarms if the difference signal exceeds a threshold value.

OFFICIAL NOTICE is taken that it was well known in the art of software design to alarm when a difference is greater than a threshold in order to perform sanity checking on inputted data.

Therefore it would have been obvious to have modified the processor to alarm if the difference signal exceeds the threshold value for the purpose of sanity checking the inputted data.

Regarding claim 16, depending on claim 15, Leroy does not disclose wherein the analyzer extrapolates information based upon the input signals from the response input.

OFFICIAL NOTICE is taken that extrapolating information based upon input signals was a well known statistical technique.

Therefore it would have been obvious to have modified the real-time analysis [Fig 7] to have included extrapolated data based upon the inputted data for the purpose of estimating statistical figures such as "Total Dollars" [Fig 7].

Regarding claim 21, depending on claim 1, Leroy does not disclose wherein the associative mapping is addressable by content.

OFFICIAL NOTICE is taken that content addressable memories (CAMs) were a well-known type of memory.

It would have been obvious to have stored the associative mapping in a content addressable memory due to the well known utility of CAMs for storing data.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENNETT INGOLDSTAD whose telephone number is (571)270-3431. The examiner can normally be reached on M-Th 8-6:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BI


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PRIMARY PATENT EXAMINER